

APR 05 2007

Docket No.: 1315-051

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Byoung Kee KIM

U.S. Patent Application No. 7,153,340

Date: December 26, 2006

: ATTN: Certificate of Correction Branch

: Group Art Unit: 1742

: Allowed: December 26, 2006

: Examiner: NGOCLAN THI MAI

For: PROCESS FOR MANUFACTURING NANO PHASE TAC-TRANSITION METAL
BASED COMPLEX POWDER

REQUEST FOR CERTIFICATE OF CORRECTION

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313

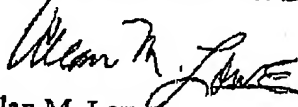
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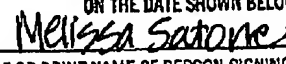
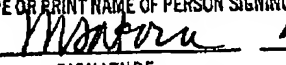
A credit card authorization form in the amount of \$100.00 is enclosed.

Respectfully submitted,

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**UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION**Page 1 of 1

PATENT NO. : 7,153,340

APPLICATION NO.: 10/747,655

ISSUE DATE : December 26, 2006

INVENTOR(S) : Byong Kee KIM; Seong Hyeon HONG; Yong Won WOO

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Cover page, Item (75) Inventors:

Please amend the Inventor as follows from "Byong Kee KIM" to
--Byoung Kee KIM--.

MAILING ADDRESS OF SENDER (Please do not use customer number below):

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(12) United States Patent
Kim et al.**(10) Patent No.: US 7,153,340 B2**
(45) Date of Patent: *Dec. 26, 2006**(54) PROCESS FOR MANUFACTURING
NANO-PHASE TaC-TRANSITION METAL
BASED COMPLEX POWDER****(75) Inventors:** ~~Byong~~ ^{Byoung} ~~Byong-Kee Kim, Dongre-Ku (KR);~~
Seong Hyeon Hong, Changwon-shi
(KR); Yong Won Woo, Seongnam-shi
(KR)**(73) Assignee:** Korean Institute of Machinery and
Materials, Taejon (KR)**(*) Notice:** Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 0 days.This patent is subject to a terminal dis-
claimer.**(21) Appl. No.: 10/747,655****(22) Filed: Dec. 30, 2003****(65) Prior Publication Data**

US 2004/0223865 A1 Nov. 11, 2004

(30) Foreign Application Priority Data

May 7, 2003 (KR) 10-2003-0028766

(51) Int. Cl.
C01B 31/30 (2006.01)
C22C 29/06 (2006.01)**(52) U.S. Cl.** 75/351; 75/369; 423/440**(58) Field of Classification Search** 75/351,
75/369; 423/440

See application file for complete search history.

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Primary Examiner—Ngoclan T. Mai*(74) Attorney, Agent, or Firm*—Lowe, Hauptman, & Berner
LLP**(57) ABSTRACT**

Ultra fine TaC-transition metal based complex powder is prepared by: dispersing a mixture of a Ta-containing material and a transition metal-containing water soluble salt into a solvent; stirring the mixture and spray-drying the stirred material to obtain precursor powder; calcining the precursor powder to form ultra fine Ta-transition metal complex oxide powder; mixing the ultra fine Ta-transition metal complex oxide powder with nano-sized carbon particles, followed by drying to obtain complex oxide powder; and subjecting the dried complex oxide powder to reduction/carburization in a non-oxidizing atmosphere.

12 Claims, 2 Drawing Sheets